

ABSTRACT

The present invention fundamentally differs from conventional methods in which an external force is directly applied to a surface of an article to be modified, and relates to a method of hydrophobilization (increasing a contact angle of water) which comprises bringing a hydrophobilization substance (a substance for increasing a contact angle of water) released from a material of another location into contact with a surface of an article, especially an article surface being hydrophilic (having a small contact angle of water) in its initial state without applying an external force on the article surface, further a method of control being capable of noncontact switching of a contact angle of water, which comprises conducting hydrophilization of an article surface subjected to hydrophobilization by the above-mentioned method in a noncontact manner and repeating these hydrophobilization and hydrophilization, and a method of pattern formation using the mentioned methods. According to those methods, hydrophobilization and hydrophilization can be carried out in the noncontact manner, and by selecting a material, degrees of hydrophobilization and hydrophilization can be adjusted.